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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/745,525

12/26/2000

Qingwen Hu

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7590

12/22/2003

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EXAMINER

NGUYEN, QUYNH H

ART UNIT

PAPER NUMBER

2642

DATE MAILED: 12/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/745,525

Applicant(s)

HU ET AL.

Examiner

Quynh H Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-10, 14-15, 23-25, 30-37, and 40-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Ash et al. (U.S. Patent 4,669,113).

Regarding claims 1, 9, 14, 24, 32, and 33, Ash et al. teach in integrated network controller for a dynamic nonhierarchical dynamic routing on the alternate paths available in the switching system, the data network including a plurality of switches (Fig. 2, SW 10) and a plurality of links connecting the switches (Fig. 2, 11), the method comprising: at a given one of the plurality of switches (Fig. 2, SW 10), each of the switches contains memory for storing information regarding the trunk links between itself and other switches (col. 2, lines 22-32), where the one of the plurality of links connects to the given one of the plurality of switches. Ash et al. further teach the routing sequences to minimize potential blocking in the network by evaluating the least loaded path for each potential connection of two switches in the system (Abstract and col. 4, lines 58-68), then preplanning changes in the first choice path and any required changes in the

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subsequent choice paths to the switching offices (col. 8, lines 59-68). In one embodiment, the concept of trunk reservation on a link deals with the traffic intensity between the offices directly connected to the link, for example reserves trunks in each link where the high blocking indicator level exceeds 1, to determine whether to pick the first choice path or other subsequent choice paths (col. 13, line 12 through col. 14, line 68) reads on claimed "if the utilization of the trunk exceeds a first threshold, initializing a first degree of adaptation".

Regarding to claims 2, 10, 15, 25, 34, and 41 Ash et al. teach consulting the database and based on data in the database such as: peg counts, overflow counts, usage counts arriving from network (col. 7, lines 9-18) to determine a course of action.

Regarding claim 3, Ash et al. teach if the high blocking of Link 1 or Link 2 level exceeds 1 for any path, the reservation flag is set to "on" to cause trunk reservation to be applied to the is path in the network reads on claimed "first degree of adaptation comprises preventing new connections having specific characteristics from being established on the trunk".

Regarding claims 7 and 8, Ash et al. teach indicating to other switches ("originating switch") that the adaptation is active on the trunk (col. 14, lines 32-35) or if the utilization of the trunk falls below the first threshold for a preset downgrade duration indicating to other switches that the adaptation is no longer active on the trunk (col. 14, lines 62-68).

Regarding claims 4-6, 30, 31, 35-37, and 42 Ash et al. teach trunks in service table, trunk status map database, routing database, and routing candidate list that

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contains lists of the path candidates for each originating switch (OS) - terminating switch (TS) pairs in the network, each OS-TS pair has a unique routing sequence and each routing sequence has a "first choice" path and "subsequent choice" paths (col. 7, line 1 through col. 8, line 48) reads on claimed "the specific characteristics relate to a priority of the new connections, relate to a destination or source of the new connections".

Regarding claim 23, Ash et al. teach repeating the selecting process ("do loops" - col. 14, lines 11-16) for additional candidate if the utilization of the trunk continues to exceed the threshold to minimize potential blocking and overflow in the network.

Claim 40 is rejected for the same reason as discussed above with respect to claim 1. Furthermore, Ash et al. teach computer-executable instructions (Fig. 7-9).

Claim Rejections - 35 USC § 103

4. Claims 11-13, 38, and 43-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ash et al. (U.S. Patent 4,669,113) in view of Ackerley et al. (U.S. Patent 6,377,677).

Claims 11-13, 38 are rejected for the same reasons as discussed above with respect to claims 3-8. Furthermore, Ash et al. teach peg counts (attempts), overflow counts (blocked calls) accumulated for the purpose of identifying a misbehaved connection trunk (col. 7, lines 15-18).

Ash et al. do not teach sending a congestion notification to a source of the misbehaved connection and alerting the policy database to reduce a priority associated with the misbehave connection.

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Ackerley et al. teach a method of routing calls in the communications network. The signaling system in use between PBXs will send a congestion message from the terminating local exchange to the originating PBX in the event that a failure has occurred (col. 1, line 61 through col. 2, line 8).

It would have been obvious to one of ordinary skill in the art to incorporate the feature of sending a congestion notification to a source of the misbehaved connection, as taught by Ackerley, in Ash's system in order to inform the source and alert the database before generating new routing sequences.

Claims 43-46 are rejected for the same reason as discussed above with respect to claims 7, 8, 11, and 16. Furthermore, Ash et al. teach computer-executable instructions (Fig. 7-9).

5. Claims 16-22, 26-29, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ash et al. (U.S. Patent 4,669,113).

Regarding claims 16-22, 26-29, and 39, Ash et al. teach a routing database contains two lists of the path candidates for each OS-TS ("path and trunk connects of switches") pairs in the network ("candidate connection"), each path candidate may be designated as primary candidate, a secondary candidate, a final routing candidate, etc. (col. 7, lines 27-47) reads on the third degree of adaptation; selecting the candidate connection is based on specific characteristics of the information stored in memory (col. 2, lines 22-32); and it would have been obvious to establish the alternate path before the connection is removed from the path to maintain the communication link and avoid service interruption that would affect value of customer service and lost of revenue.

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Response to Arguments

6. Applicant's arguments with respect to claims 1-46 have been considered but are moot in view of the new ground(s) of rejection.


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quynh H. Nguyen whose telephone number is 703-305-5451. The examiner can normally be reached on Monday - Thursday from 6:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar, can be reached on (703) 305-4731. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

qhn

Quynh H. Nguyen
December 1, 2003


AHMAD MATAR
SUPERVISORY PATENT EXAMINER
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